A.   Status Of The Claims / Explanation of Amendments

Claims 1-89 were pending in this application and were rejected. By this amendment each of these rejected claims has been cancelled without prejudice or disclaimer. In their place, Applicants' submit new claims 90-121 for consideration. Support for these claims is found throughout the specification.

Claims 90-96 relate to a first aspect of the Applicants' inventive method where probabilistic distribution of investment outcomes is used to illustrate the impact of a withdrawal plan having both a fixed dollar component and a fixed percentage component. Claims 97-103 relate to computer-readable media having computer-executable instructions for that inventive method. Claims 104-110 relate to apparatuses for practicing that inventive method. Claim 111 relates to a computer program for practicing that inventive method.

Claims 112-119 relate to a second aspect of the Applicants' inventive method where historical rates of return and historical rates of inflation are used to generate the distribution of incomes and also to project a withdrawal amount that is adjusted for the historical rate of inflation. Claims 120 and 121 relate to a third and fourth aspect of the Applicants' inventive method. In these methods either, on the one hand, historical rates of return and rates of inflation (e.g., an assumed, fixed number) are used to generate the distribution of incomes or, on the other hand, rates of return (e.g., an assumed, fixed number) and historical rates of inflation are used to generate the distribution of incomes.

On Tuesday, August 20, 2002, a telephone interview was held with the Examiner to discuss four proposed claims similar to claims 90-121. At the outset, Applicants thank the Examiner for extending the courtesy of an interview to discuss this application. During that

interview, preliminary agreement was reached that the claims complied with 35 U.S.C. §§ 101

and 112. Accordingly, the 35 U.S.C. §§ 101 and 112 rejections set forth in the office action are

not specifically addressed below. Suffice it to say, Applicants believe that claims 90-121 are

directed to patentable subject matter and fully comply with the requirements of 35 U.S.C. §§ 101

and 112.

In addition to the changes to the claims discussed above, Applicants have

amended the specification to reflect the registration of the trademark SELIGMAN

HARVESTER®. Other minor typographical and editorial changes were made in the

specification. For example, the first paragraph of page 1 was amended to clarify that "an asset

allocation" was determined. Later in that paragraph, the phrase "their accumulated wealth" was

changed to "their wealth accumulated." And still later in that paragraph, the phrase "while

gathering income" was changed to "while withdrawing income." Also on page 26 in the third

full paragraph, the word "suitable" in the last line was changed to "appropriate."

Also, Applicants have amended the title in conformance with MPEP § 608.01(v),

which recommends avoidance of trademarks in invention titles.

The prior office action cited five references: (1) U.S. Patent No. 5,774,881 to

Friend et al. ("Friend `881"), (2) U.S. Patent No. 6,055,517 to Friend et al. ("Friend `517"),

(3) U.S. Patent No. 6,012,043 to Albright et al. ("Albright"), (4) Jovin, "New Software, New

Sophistication: These Programs Promise To Improve The Quality Of Financial Advice,"

Financial Planning (Aug. 1998) ("Jovin") and (5) Bengen, "Determining Withdrawal Rates

Using Historical Data," Journal of Financial Planning (Oct. 1994) ("Bengen"). Although each of

the rejections involving these references is moot now (because the rejected claims have been

cancelled), below we explain how new claims 90-121 are patentably distinct from these

references, alone or in combination.

B. **Claims 90-111 Are Patentably Distinct
     From The Five References Previously Cited**

1. Friend '881 And Friend '517 Fail To Teach, Disclose, Or Suggest A
    "Withdrawal Amount Having A Fixed Dollar Amount, And
    A Fixed Percentage Amount" As Recited In Claim 90

Friend '881 and Friend '517 are directed to a wholly different aspect of financial

planning than Applicants' invention of claim 90. These patents are directed to stress-testing

possible asset allocation schemes for pension plans. Pension fund liabilities are variable. These

liability are affected, for example, by the demographics of hundreds, thousands or even millions

of pensioners. These patents do not disclose a fixed dollar or a fixed percentage withdrawal

amount.

Accordingly, Friend '881 and Friend '517 fail to teach, disclose, or suggest a

"withdrawal amount having a fixed dollar amount, and a fixed percentage amount" as recited in

claim 90.

2. Albright Fails To Teach, Disclose, Or Suggest A "Withdrawal
    Amount Having A Fixed Dollar Amount, And A Fixed
    Percentage Amount" As Recited In Claim 90

Albright's system and method of financial planning is designed for "estimat[ing]

values of needed savings levels and future income." Col. 1, lines 8-13. To establish an estimate

for future needs, Albright discloses that this value is calculated from financial information

relating to the user's financial situation and demographic information to determine average

income needed per year in retirement. Col. 4, line 64 – Col. 5, line 10. The living expenses and

insurance costs are increased each year by various inflation rates. This is a fixed dollar withdrawal scheme only. Albright does not disclose withdrawal amounts that are a percentage of the portfolio value.

Accordingly, Albright fails to teach, disclose or suggest a "withdrawal amount having a fixed dollar amount, and a fixed percentage amount" as recited in Applicants' claim 90.

      3.   Jovin Fails To Teach, Disclose, Or Suggest A "Withdrawal
                Amount Having A Fixed Dollar Amount, And A Fixed
                <u>Percentage Amount" As Recited In Claim 90</u>

Jovin is a survey article discussing various software packages that use Monte Carlo analysis to illustrate portfolio risk to investors. There is no mention whatsoever of particular withdrawal plans. The focus is elsewhere.

Accordingly, Jovin fails to teach, disclose or suggest a "withdrawal amount having a fixed dollar amount, and a fixed percentage amount" as recited in Applicants' claim 90.

      4.   Bengen Fails To Teach, Disclose, Or Suggest A "Withdrawal
                Amount Having A Fixed Dollar Amount, And A Fixed
                <u>Percentage Amount" As Recited In Claim 90</u>

Bengen teaches that retirees' withdrawal amounts are fixed dollar amounts, with the exception that amounts are increased to reflect inflation. For example, Bengen assumes a withdrawal amount equal to $40,000 (4% of the initial portfolio value), and indexes that withdrawal amount by inflation for each successive year. Bengen, p. 179. Thus the withdrawal amount does not have a fixed percentage amount component, but rather is a fixed dollar amount value.

Thus, Bengen fails to teach, disclose or suggest a "withdrawal amount having a fixed dollar amount, and a fixed percentage amount" as recited in Applicants' claim 90.

C.   **Claims 112-121Are Patentably Distinct**
      From The Five Previously Cited References

1.   *The Friend `881 And `517 Patents Fail To Teach, Disclose Or*
      Suggest The Step Of "Generating A Probabilistic Distribution Of
      Investment Outcomes . . . And Determining, For Each Of The
      Projected Portfolio Values, A Projected Withdrawal Amount That
      Corresponds To The Desired Withdrawal Amount Adjusted For The
      Historical Rate Of Inflation" As Recited In Applicants' Claim 112

Friend `881 and Friend `517 are directed to methods for determining optimal asset

allocations for pension funds to minimize risk that plan costs will exceed plan cash flow. Friend

`881 at Col. 1, lines 11-21. The methods of these patents are very similar. Initially, data are

gathered concerning a pension plan (*e.g.*, participant demographic data). Friend `881 at Col. 3,

lines 1-6. From this, the plan cost is computed and projected into the future.

Separate and distinct from this task, the pension plan future cash flow is

estimated. A desired asset allocation is selected. Friend `881 at Col. 3, lines 17-24. Then cash

flow is projected into the future. Friend `881 at Col. 3, lines 28-30. After selecting a risk

tolerance baseline, the cash flow projections are compared with the plan costs according to the

risk tolerance baseline to determine whether the asset allocation is appropriate. Friend `881 at

Col. 3, lines 49-67. Thus, Friend `881 teaches that the task of calculating plan cost projections is

separate from the task of calculating cash flow projections.

In a preferred embodiment of Friend `881 "a comprehensive database of historical

Consumer Price Indices (CPI's) and historical market results for stocks, bonds and cash

equivalents are sampled to generate the asset cash flow projections." Friend `881 at Col. 3, lines

37-41. In addition, claims 3 and 7 of Friend `881 mention Monte Carol simulation.  Friend `881

at Col. 7, line 32 and Col. 9, line 4. However, Friend `881 does not discuss the details of how

the historical CPI and market result data are sampled or how Monte Carlo simulation is used.

Nor does Friend `881 discuss the interrelation between the methodology of projecting cash flows

and the methodology of projecting plan costs.

Nothing in Friend `517 (a later filed continuation in part application related to

Friend `881 that is supplemented with additional details concerning the simulation) remedies

these deficiencies of Friend `881. For example, Friend `517 explains:

> Simulation of a future financial projection shall be,
> for example, a large or substantial number of such
> financial projections each generated by (or as the
> result of) a series of, for example, Monte Carlo
> controlled random inflation and "real" return (return
> net of inflation) selections from the past, user
> modified past, or parametrically anticipated future
> behavior of plan assets invested in accordance with
> the selected asset allocation (e.g., a large number of
> cash flow projections of future plan asset levels or a
> large number of future fundable plan cost
> projections determined as the result of controlled
> random selections of inflation and real investment
> return from a past defined period).

(Friend `517 at Col. 3, lines 20-31).

Later, Friend `517 continues:

> [T]he future behavior of the plan . . . using that
> selected asset allocation . . . is monitored through
> hundreds of simulations of how the plan might
> perform in the future. Simulations are
> accomplished by creating random but realistic
> alternative future CPI's, and future asset class
> investment returns, to forecast future behavior of
> the system portfolio, and to forecast future benefit
> disbursements and plan costs and liabilities as of
> each future year.

(Friend `517 at Col. 14, lines 7-14).

Similarly, claim 4 of Friend `517 recites that:

> Projected investment returns of individual asset
> classes are either an interaction of projected
> inflation deflators and real (net of inflation) asset
> class returns generated independently of each other
> or in tandem, with projections historically (or
> modified historically) or parametrically developed
> or, projected nominal rates of return of individual
> asset classes are extracted from history by stringing
> together consecutive periods of user-selected
> length;

(Friend `517 at Col. 17, lines 53-62).

In short, nothing in Friend `881 or in Friend `517 suggests the desirability of

capturing the correspondence between historical rates of return, historical rates of inflation and

future expected withdrawals. Nothing in Friend `881 or in Friend `517 suggests linking the

projected portfolio values with the withdrawal amounts adjusted for inflation that corresponds to

each of the investment outcomes. Accordingly, Friend `881 or in Friend `517 fail to teach,

disclose or suggest the step of "generating a probabilistic distribution of investment outcomes . . .

and determining, for each of the projected portfolio values, a projected withdrawal amount that

corresponds to the desired withdrawal amount adjusted for the historical rate of inflation" as

recited in Applicants' claim 112.

> 2.   *Albright Fails To Teach, Disclose, Or Suggest The Step Of "Generating
>   A Probabilistic Distribution Of Investment Outcomes . . . And
>   Determining, For Each Of The Projected Portfolio Values, A Projected
>   Withdrawal Amount That Corresponds To The Desired Withdrawal
>   Amount Adjusted For The Historical Rate Of Inflation" As Recited In
>   Applicants' Claim 112*

Albright is directed to a computerized system and method used in financial

planning. Albright teaches that basic information is obtained from the investor such as savings

level, risk tolerance, preferred retirement age etc. Then applying "decision rules," Albright

calculates "hypothetical" middle, low and high rates of return for the investor. Col. 44, lines 58-

65. The alleged benefit of Albright's method is that simplifying assumptions are made by his

"expert system," including assumptions about "rate of return over possibly long periods of time."

Col. 2, lines 27-33. Albright mentions numerous times that his rates of return are assumed. *See*,

e.g., Col. 4, lines 21-22; Col. 5, lines 43-44; Col. 5, line 66 – Col. 6, line 3. Moreover, nothing

in Albright suggests linking the projected portfolio values with the withdrawal amounts adjusted

for inflation that corresponds to each of the investment outcomes.

Thus, Albright clearly fails to teach, disclose, or suggest the step of "generating a

probabilistic distribution of investment outcomes . . . and determining, for each of the projected

portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal

amount adjusted for the historical rate of inflation" as recited in Applicants' claim 112.

3. *Jovin Fails To Teach, Disclose, Or Suggest The Step Of "Generating A Probabilistic Distribution Of Investment Outcomes . . . And Determining, For Each Of The Projected Portfolio Values, A Projected Withdrawal Amount That Corresponds To The Desired Withdrawal Amount Adjusted For The Historical Rate Of Inflation" As Recited In Applicants' Claim 112*

Jovin is a survey article describing the application of Monte Carlo techniques to

financial planning. *See* p. 1. In this article, Jovin discusses software by Decisioneering ("Crystal

Ball") and Palisade ("@Risk") that allows individuals to estimate the probability of reaching

certain financial goals based on a variety of input data. These programs are "a set of proprietary

models" that were developed to "generate scenarios of how the economy might perform,"

including models for inflation, interest rates, numerous types of equity returns and bond returns,

and dividends. p. 3.

However, Jovin is silent as to how the Monte Carlo and subsequent analysis

actually are performed. There is no disclosure of how the models were developed, other than to

say they are proprietary. In particular, there is no disclosure that historical rates of return and

historical rates of inflation are cross-correlated. Moreover, nothing in Jovin suggests linking the

projected portfolio values with the withdrawal amounts adjusted for inflation that corresponds to

each of the investment outcomes.

Thus, Jovin clearly fails to teach, disclose, or suggest the step of "generating a

probabilistic distribution of investment outcomes . . . and determining, for each of the projected

portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal

amount adjusted for the historical rate of inflation" as recited in Applicants' claim 112.

> 4.   *Bengen Fails To Teach, Disclose, Or Suggest The Step Of "Generating*
> *A Probabilistic Distribution Of Investment Outcomes . . . And*
> *Determining, For Each Of The Projected Portfolio Values, A Projected*
> *Withdrawal Amount That Corresponds To The Desired Withdrawal*
> *Amount Adjusted For The Historical Rate Of Inflation" As Recited In*
> *Applicants' Claim 112*

Bengen discusses a method of determining withdrawal rates using historical data.

Although Bengen uses historical data, he does not do so in a way to predict or estimate a

distribution of investment outcomes. Instead, Bengen assumes that investors place their money

in the market in January 1, 1926 and then simulates how his hypothetical investor's decisions

affect the value of their money and longevity of their portfolio. There is no discussion of the use

of a Monte Carlo analysis in Bengen. Moreover, nothing in Bengen suggests linking the

projected portfolio values with the withdrawal amounts adjusted for inflation that corresponds to

each of the investment outcomes.

Thus, Bengen clearly fails to teach, disclose, or suggest the step of "generating a probabilistic distribution of investment outcomes . . . and determining, for each of the projected portfolio values, a projected withdrawal amount that corresponds to the desired withdrawal amount adjusted for the historical rate of inflation" as recited in Applicants' claim 112.

For at least similar reasons, claims 113-119 (dependent on claim 112) and independent claims 120 and 121 are respectfully asserted to be patentably distinct from the cited references, alone or in combination.
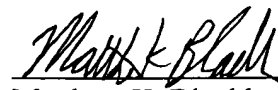
CONCLUSION

Based on the foregoing amendments and remarks, applicant respectfully requests reconsideration and allowance of the application.

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3635-4000.

Respectfully submitted,
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Dated: August 22, 2002   By: _____
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